

REMARKS/ARGUMENTS

Favorable reconsideration of this Application, as presently amended and in light of the following discussion, is respectfully requested.

This Amendment is in response to the Office Action mailed on May 18, 2005. Claims 1-20 are pending in the Application, and Claims 1-13 stand rejected. Claims 14-18 have been withdrawn from consideration. Claims 1 and 14 are amended and new Claims 19 and 20 are added by the present Amendment.

In the outstanding Office Action, Claims 1-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in FIG. 4 (hereinafter “AAPA”) in view of Nakasugi et al. (U.S. Patent No. 6,145,377 hereinafter “Nakasugi”).

Applicants thank Examiner Euncha Cherry for the courtesy of an interview extended to Applicants’ representative on June 13, 2005. During the interview, amendments to the claims as herein presented were proposed, and arguments as hereinafter developed were presented.

During the discussion with Examiner Cherry, Applicants’ representative explained that there was no motivation to modify AAPA by the teachings of Nakasugi, and, even if combined, all claimed features are not taught by both references. As acknowledged in the outstanding Office Action, AAPA was clearly disclosed as having “a radial bearing pressed into or bonded to an inner circumferential surface of a stator yoke,”¹ that is, AAPA does not have radial and thrust bearings that are replaceable. The manner of assembling the polygon mirror scanner of AAPA clearly teaches against making its radial bearing replaceable as claimed. Nakasugi does not remedy this deficiency of AAPA.

Nakasugi does not teach radial and thrust bearings that are each separately replaceable because, although the rotary part 15 is separable from the stationary part 16, “the stationary

¹ See, for example, Specification, page 1, lines 26-30.

member 3 made of a metal material is mounted on the outer periphery of the rotary sleeve 2 by *shrinkage fitting or the like*,² thus the rotary sleeve 2 cannot be replaced in the rotary part 15 without damage to the device of Nakasugi.

An agreement with respect to the claims was reached during the personal interview. Examiner Cherry indicated on the interview summary (form PTO 413) that "Applicant's representative further explained the invention by pointing out the differences that are lacking from the admitted prior art, currently shown in Fig. 4 of the present application, as a non-limiting example. However, Applicant's representative was informed that what's lacking from Fig. 4 is shown in Nakasugi et al. reference. Examiner and the Applicant's representative agreed that by adding "separately" in between "each" and "replaceable" in the last line of Claim 1 would overcome the outstanding rejection for Claim 1 and dependent claims thereon. Further, the Applicant's representative suggested changes to Claim 2 to overcome the rejection, including the feature of the radial bearing being fixed to the stator yoke with a removable fixing member. Examiner believes such amendment would overcome the rejection in the record, separate from the above noted amendment to Claim 1. Further consideration will be given to Claims 14-18, if the bearing device of Claim 14 is recited as being configured to be used in a scanner comprising a polygonal mirror."

Claim 1 is amended to recite that the radial and thrust bearings are each separately replaceable. Based at least on the foregoing discussion, the amendment to Claim 1, and the results of the personal interview, Applicants respectfully submit that the above-summarized rejections are now moot. Their withdrawal is respectfully requested.

In addition, Claim 14 is amended to recite that the claimed bearing device is configured to be used in a scanner having a polygon mirror. Therefore, based on the results of the personal interview and the amendment to Claim 14, reconsideration of the previously

² Nakasugi, col. 3, lines 13-15, emphasis added.

issued Restriction Requirement of Claims 14-18, made final in the outstanding Office Action, is requested.

Finally, Applicants have submitted new Claims 19 and 20, for which non-limiting support is self evident from the originally filed claims. Therefore, new Claims 19 and 20 are not believed to raise a question of new matter.³

New Claim 19 recites a polygon mirror scanner, comprising, among other features, means for separately and individually replacing or detaching the radial or thrust bearings from the polygon mirror scanner. Applicants respectfully submit that under the provisions of 35 U.S.C. §112, sixth paragraph⁴ and the examining guidelines clearly outlined in the MPEP § 2181-2183, Claim 19 is not anticipated nor made obvious by either AAPA or Nakasugi, individually or in any combination, because (1) the polygon mirror scanner devices disclosed therein do not perform an identical function substantially the same way to produce substantially the same results as the polygon mirror scanner device of the present invention;⁵ (2) those of ordinary skill in the art would not recognize the interchangeability of the elements of AAPA and Nakasugi with the ones disclosed in Applicants' specification;⁶ (3)

³ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

⁴ "The broadest reasonable interpretation that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination." MPEP § 2181, citing *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994).

⁵ A showing that "the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000).

⁶ A showing that "a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus. Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, 461 (Ct. Cl. 1977); and *Data Line Corp. v. Micro Technologies, Inc.*, 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987).

the differences between the elements in AAPA and Nakasugi and corresponding elements disclosed in Applicants' specification are substantial;⁷ or (4) the elements in AAPA and Nakasugi are not structural equivalents of the corresponding elements disclosed in Applicants' specification.⁸ As such, Applicants respectfully submit that Claim 19 patently distinguish over AAPA and Nakasugi.

New Claim 20 recites a polygon mirror scanner, comprising, among other features, a bearing device comprising a fixing member removably fixed to a stator yoke, in which radial and thrust bearings are each individually replaceable or removable from the bearing device by removing the fixing member from the stator yoke. Based on the above-summarized remarks and the agreement reached during the personal interview with respect to the subject matter of Claim 2, Applicants respectfully submit that Claim 20 patently distinguish from AAPA and Nakasugi.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-20 is earnestly solicited.

⁷ A showing that "there are insubstantial differences between the prior art element and the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138 (Fed. Cir. 2000); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S. Ct. 1040, 41 USPQ2d 1865, 1875 (1997); *Valmont Industries, Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 25 USPQ2d 1451 (Fed. Cir. 1993); and *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

⁸ A showing that "the prior art element is a structural equivalent of the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

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Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representatives at the below listed telephone number.

Respectfully submitted,

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